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U.S. ENVIRONMENTAL PROTECTION AGENCY  
BEFORE THE COMMITTEE ON ENVIRONMENT & PUBLIC WORKS  
U.S. SENATE**

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Mr. Chairman, and members of the Committee, I appreciate the opportunity to come before you today to testify regarding "The Impact of Elimination of MTBE." My testimony will address how recent amendments to fuel quality regulations and ongoing implementation of the Energy Policy Act of 2005 affect existing U.S. fuel programs, in particular the Reformulated Gasoline Program (RFG), which has historically utilized large quantities of methyl tertiary butyl ether (MTBE) in order to meet requirements imposed by the 1990 Clean Air Act Amendments.

As the Associate Assistant Administrator for the Agency's Office of Air and Radiation, my responsibilities include supporting the Assistant Administrator on all air-related activities of the Environmental Protection Agency (EPA or Agency), including programs addressing industrial and vehicle pollution, acid rain, stratospheric ozone depletion, radiation protection, indoor air quality and global climate change. I am pleased to be here representing my colleagues at EPA who are responsible for implementing the various laws and provisions that protect our nation's air quality. An important element of this task is the successful development and implementation of programs affecting our nation's fuel supply.

Following passage of the Clean Air Act Amendments of 1990, EPA was tasked with developing and implementing new motor vehicle emissions and motor vehicle fuel quality programs to reduce harmful evaporative and exhaust emissions that negatively impact our

nation's environment and public health. Among many other new provisions, the Clean Air Act required the implementation of several new fuel quality programs with prescribed fuel parameters that supported attaining our nation's clean air standards. The Agency developed specific controls on fuel component parameters, such as seasonal controls on Reid vapor pressure and the RFG oxygenate requirements. Where available under applicable legislative provisions, the Agency also utilized a performance based approach to afford fuel producers greater flexibility in bringing these new cleaner fuels to market.

In 1992, the Wintertime Oxygenated Fuels Program was implemented, requiring more than thirty areas exceeding air quality standards for carbon monoxide to use oxygenated fuels. This program, as specified in the 1990 Clean Air Act Amendments, required gasoline to contain 2.7 weight percent oxygen and the program has been instrumental in bringing many of these areas into attainment of the national standard for this pollutant. Both MTBE and ethanol were the primary products used to meet these new quality standards.

Subsequently, following successful regulatory negotiations with the oil industry stakeholders, oxygenate producers, states, and other interested parties, another landmark fuel quality program was implemented – the RFG program. The 1990 Clean Air Act Amendments specifically required RFG to contain on average 2.0 weight percent oxygen and established a two phase program designed to reduce vehicle emissions that cause or contribute to ozone (smog) and toxic pollution in our cities. The first phase of the RFG program introduced cleaner gasoline in January 1995, followed by the more protective Phase 2 in January 2000. This program was required in the ten metropolitan areas with the most serious air pollution levels. Although not

required to participate, some areas in the Northeast, Kentucky, Texas, and Missouri elected to join, or “opt-in” to the RFG program as a cost-effective measure to help combat air pollution problems. Today, roughly 35 percent of this country’s gasoline consumption is cleaner-burning reformulated gasoline. The RFG program has also often been referred to as one of the most successful air quality programs implemented. As in the Wintertime Oxygenated Fuels Program, MTBE and ethanol were again the primary products used to meet these new quality standards.

For more than a decade prior to the implementation of these fuel quality programs, refiners worldwide had been using MTBE, an oxygenated hydrocarbon derived from methanol and petroleum, to augment gasoline supplies and provide a source of octane. Ethanol was also used in the nation’s fuel supply for several decades. With the implementation of the RFG and the Wintertime Oxygenated Fuels Program, however, the use of fuel oxygenates, almost exclusively MTBE and ethanol, increased dramatically. In meeting RFG requirements and other state-specific requirements, ethanol was primarily utilized in the Midwest. MTBE is primarily used elsewhere, including large areas of the Northeast, the State of California, and metropolitan Philadelphia, Baltimore and Washington.

Over the last six to seven years, however, concerns have arisen with respect to groundwater contamination from leaking underground storage tanks having gasoline containing MTBE. These concerns prompted some states to ban the use of MTBE in gasoline, including large gasoline markets such as California, New York, and Connecticut. This resulted in a significant reduction in the use of MTBE and a corresponding increase in the use of ethanol in these areas.

## **The Energy Policy Act of 2005**

The Energy Policy Act of 2005 (Act) made several alterations to the RFG program, including removal of the 2 percent oxygenate mandate for RFG. In response to the law's enactment in August of last year, EPA promulgated a direct final rule to amend the RFG regulations in order to eliminate regulatory standards requiring the use of oxygenates in RFG. The direct final rule provides that these regulatory standards will no longer apply nationwide, outside of California, as of May of this year. Within California, the RFG oxygenate regulatory standards will no longer apply as of April of this year. The rule also serves to implement provisions of the Energy Policy Act respecting the commingling of ethanol-blended and non-ethanol blended reformulated gasoline.

The Energy Policy Act of 2005 also set forth a new national renewable fuels program that established renewable fuel volume standards beginning in 2006. The renewable fuel standard, or RFS, requires an increasing volume of renewable fuel to be utilized in the continental United States starting in 2006. In order to implement this requirement, EPA published a direct final rule in December 2005. This "default" rule for RFS compliance applies only in 2006.

Under the RFS default rule, refiners, importers, and gasoline blenders will collectively be held responsible to meet a 2.78% nationwide renewable volume standard. This equates to approximately 4.0 billion gallons toward which both ethanol and biodiesel can count. The Energy Policy Act specified 4.0 billion gallons as the RFS level for 2006. This level increases

year by year through 2012 under a specific statutory schedule and increases afterwards according to other statutory provisions. If the 2.78% volume standard is not met, the default rule specifies that this deficit would carry over to the RFS requirement for 2007. However, based on data demonstrating ethanol use in 2005, and stakeholder projections for 2006, it is expected that far greater than 4.0 billion gallons of renewable fuels will be used in 2006 in the U.S.

As the Agency continues to address other provisions of the Energy Policy Act which have the potential to impact the US gasoline market, we are paying close attention to the specific directions set forth in the Act in designing future programs and making required revisions to existing ones. Recognizing that fuel oxygenates, such as MTBE and ethanol, have played a significant role in these programs and are a significant volume portion of the overall US gasoline market, the Agency will continue to strive to maintain and advance the air quality protection gains through these programs, while minimizing potential market impacts when possible.

Looking forward, it is the Agency's understanding that as a result of changes made by the Energy Policy Act of 2005, in particular the removal of the RFG oxygenate requirement, MTBE use in the RFG program will decline significantly. Some fuel providers are already transitioning away from using MTBE with most moving to blend ethanol in their RFG products. It is not anticipated that large volumes of non-oxygenated RFG will be in the RFG market areas.

In order to accomplish this change in the RFG market, fuel producers will produce reformulated gasoline blendstock for oxygenate blending (RBOB) that, compared with MTBE RFG, may require adjustments to lower the Reid vapor pressure of the RBOB in order to

accommodate ethanol blending. In addition, some stakeholders have indicated that the removal of MTBE from the RFG pool may also result in some refiners using ethanol in order to meet the RFG toxics requirements.

Altogether then, RFG is likely to absorb a significant percentage of ethanol utilization in this country. The Northeast market alone, with areas in New Jersey, Pennsylvania, Delaware, Maryland, the District of Columbia, Northern Virginia, Richmond and Norfolk, may undergo a substantial conversion to ethanol RFG. The Houston and Dallas markets are already experiencing a change over to ethanol RFG.

While EPA would defer to the Energy Information Administration to make assessments concerning overall impact of this conversion on fuel price and supply, it is likely that without a minimum oxygenate standard in place, traditional market supply, demand and economic behavior will have a greater role in determining the production and blending of compliant RFG. With the removal of the RFG oxygenate standard, refiners will have greater flexibility as to when and where to blend ethanol or other oxygenates. As a result, refinery volumes may be affected since using ethanol to support volume replacement is not a one to one equivalent with MTBE blended RFG.

Depending on decisions made in the private marketplace, there are also potential upstream distribution impacts that may occur as a result of conversion from MTBE to ethanol-based RFG. Responses may involve designated tanks, tank management practices and terminal

blending equipment. Retail facilities may also need to prepare for any switch to ethanol blended fuels, by emptying and cleaning their storage tanks and removing any water.

There are also several other provisions of the Energy Policy Act which will affect the fuel supply and potentially affect or mitigate supply issues. For example, unification of RFG northern and southern volatile organic compound (VOC) controls, as required by section 1504(c) of the Act, will allow RFG product to move to markets more freely. Further, the development of a boutique fuels limitation required under section 1541 of the Act will affect EPA's future consideration of state requests for fuel controls or prohibitions.

EPA also recently proposed the Mobile Source Air Toxics (MSAT) rule. Pursuant to section 1504(b) of the Energy Policy Act of 2005, EPA must adjust the toxics emissions baselines for reformulated gasoline to reflect 2001-2002 fuel qualities. However, this section also provides that this action becomes unnecessary if EPA takes action which results in greater overall reductions of toxics emissions from vehicles in areas with reformulated gasoline. As proposed, EPA believes that the MSAT rule would result in greater reductions than would be achieved through adjusting the baselines under section 1504(b). Accordingly, if the EPA were to finalize an MSAT rule meeting the directives of this section, the need for readjusting baselines for reformulated gasolines would be obviated.

EPA will also be taking action this year to propose a rulemaking to implement the RFS for 2007 and subsequent years. While this proposal is still under development, EPA is cognizant of the need to propose an RFS implementation plan that maximizes existing fuel production and distribution market dynamics and minimizes impacts on production, supply, distribution and price. In general, the proposed rulemaking will define who the liable parties are for the RFS,

establish a credit trading program, assign appropriate credits for additional renewable fuel products and establish compliance assurance provisions.

Altogether, through a combination of removal of the RFG oxygenate standard and implementation of the new renewable fuels requirement, ethanol use in the U.S. will undoubtedly increase and MTBE use will likely decrease by a substantial margin. The precise impact of these events will depend on many different factors, including the reaction of the private marketplace to the elimination of previous regulatory requirements. As indicated above, EPA is committed to helping ensure a successful transition to greater use of renewable fuels and will work with other federal agencies and departments on issues affecting fuel supply and distribution.

Again, I want to thank you, Mr. Chairman and the members of the Committee for your attention to this important issue. This concludes my prepared statement. I would be happy to answer any questions that you may have.